DECLARATION OF MARIO LECLERC

I, Mario Leclerc, do declare that:

1. I am a Canadian citizen residing at 909 rue Laudance, Apt. 316, Québec (Québec) G1X 5H7, Canada. I was professor of chemistry at the Université de Montreal between 1989 and 1998 and since 1998, I have been professor of chemistry at Université Laval.

2. Hoang-Anh HO, Maurice BOISSINOT and I are the inventors of EP 04737768 (in the following "the application") which is based on PCT application No. PCT/CA2004/000824 "Optical Sensor Based on Hybrid Aptamer / Conjugated Polymer Complexes" published under WO 2004/106544 on December 9, 2004. In this application, we describe and claim a system for the detection of various targets by using a sensor comprising an aptamer capable of binding to the target and a polythiophene. As presently claimed, these targets are different from nucleic acid molecules. In the following, I will explain why I am of the opinion that, at the time point of our invention, it could not have been expected that aptamer-polythiophene sensors are useful for the detection of non-nucleic acid targets.

3. The claimed sensors comprise two components, an aptamer and a polythiophene. Aptamers are synthetic nucleic acid molecules capable of binding to target molecules. At the time point of our invention, it was known that such aptamers can bind a variety of ligands including various metal ions, amino acids, drugs, proteins or other molecules (see application, [0003], last sentence and the literature cited therein). In fact, when we made our invention, it was common general knowledge how to identify such aptamers.

4. Furthermore, at the time point of our invention, the polythiophenes which form the second component of the claimed sensor were also generally known (see eg. our own invention WO 02/81735, D1 in the present proceedings).

5. Finally, at the time point of our invention, it was also known that it is possible to detect nucleic acid molecules in a solution by using a sensor comprising a nucleic acid molecule complementary to the nucleic acid molecules to be detected and a polythiophene. This was our invention which we described in D1. In the experiments leading to the invention described in D1, we could demonstrate that a polythiophene is capable of forming a complex with a double-stranded DNA. During formation of this complex, the polythiophene alters its structure which results in a detectable signal. This complex between double-stranded DNA and polythiophene is called "triplex" in D1 (see e.g. Figure 6 of D1).

6. However, it was not known and could not be expected at the time point when we made our invention that polythiophenes are capable of forming a complex with an aptamer binding a non-nucleic acid molecule. Even more, it could not be expected that the formation of such a complex results in a detectable signal. The reason for this is that, at the time point of our invention, it was known from the literature that the three-dimensional structure of the complex between the aptamer and the non-nucleic acid target differs fundamentally from the three-dimensional structure of a nucleic acid duplex molecule. As e.g. demonstrated in the attached publications (Nucleic Acid Selection and the Challenge of Combinatorial Chemistry; G-Quadruplex Formation of Thrombin-Binding Aptamer Detected by Electrospray Ionization Mass Spectrometry; Folding of the Thrombin Aptamer into a G-Quadruplex with Sr2+: Stability, Heat, and Hydration; A

DNA Aptamer as a New Target-Specific Chiral Selector for HPLC; Structure-Switching Signaling Aptamers; and Nucleic Acid Aptamers From Selection in Vitro to Applications in Vivo), aptamers can form G-quartets (often called quadruplex) upon the binding of a specific target. The formation of this structure has also been confirmed by ourselves in the experiments shown in the application (see e.g. Figures 1 and 3, page 11, [0041] and [00423]. Such G-quartets have a totally different conformational structure from double-stranded oligonucleotides or DNA. Due to the difference in the structure, it was, at the time point of our invention, impossible to predict and had even to be considered as unlikely that polythiophenes as defined in our application can a) bind to said quadruplex structures and b) undergo a conformational change upon this binding which results in a detectable signal. In this context, it is again important to note that the signal we obtained for the quadruplex structure differs from the signal obtain for a triplex structure in D1.

7. For this reason, it is my opinion that, at the time point when we made our invention, there was no hint in the literature that complexes between an aptamer and a non-nucleic acid target could be detected with the help of a polythiophene.

8. I declare that all statements made in this declaration of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

6 April 2009
Date

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Research Achievements

- More than 160 publications in peer reviewed journals; cited over 6000 times; H-index of 45;
- 9 Invited book chapters;
- 9 Awarded or filed patents;
- 106 Invited lectures at prestigious institutions and meetings;
- Training of more than 32 graduate students;
- Invited Professor at the Université de Paris-XIII and Paris-VI, as well at the University of Durham.

Teaching Achievements

- Set up of new courses on Novel Materials at the undergraduate and graduate levels;
- Student evaluation of all courses above the Departmental average;
- 2006 « Professeur Étoile» Outstanding Teaching Award from the Faculty of Science and Engineering given to professors having superior student evaluation of their courses.

Academic Background

B.Sc. Chemistry	Université Laval	1983
Ph.D. Chemistry	Université Laval	1987
Postdoc	INRS-Énergie et Matériaux	1987-88
Postdoc	Max-Planck-Institute for Polymer Research	1988-89

Academic and Research Experience

Assistant Professor	Université de Montréal	1989-1994
Invited Professor	Université de Paris-XIII	May-June 1992
Associate Professor	Université de Montréal	1994-1998
Invited Professor	University of Durham	Aug.-Oct. 1996
Full Professor	Université de Montréal	1998
Full Professor	Université Laval	1998-
Holder of the Canada Research Chair (Tier 1) on	Electroactive and Photoactive Polymers	2001-
Invited Professor	Université de Paris-XIII	June-July 2001
Invited Professor	Université de Paris-VI	June-July 2003

Most significant work

1. H.A. Ho, M. Boissinot, M.G. Bergeron, G. Corbeil, K. Doré, D. Boudreau and M. Leclerc, «**Colorimetric and Fluorometric Detection of Nucleic Acids Using Cationic Polythiophene Derivatives**», *Angew. Chem. Int. Ed.*, 41, 1548-1551 (2002). Extensive studies over the last fifteen years on new chromic conjugated polymers and oligomers have led us to the rational design of novel optical and electrochemical biosensors. We have gained an international leadership in this field, as shown by many related invited lectures, invited reviews, and book chapters. Recent optimizations have led to the specific detection of less than 20 copies of genetic materials.
2. J.F. Morin and M. Leclerc, «**Syntheses of Conjugated Polymers Derived From *N*-alkyl-2,7-carbazoles**», *Macromolecules*, 34, 4680-4682 (2001). Our synthetic work on conjugated polymers has led us to prepare, for the first time, well-defined and conjugated poly(2,7-carbazole) derivatives. This novel and promising class of electroactive and photoactive polymers should open new research areas in the field of light-emitting diodes, thermoelectric devices, photovoltaic cells, and transistors. In particular, this novel class of conjugated polymers has allowed the development of light-emitting materials that cover the full visible range and this significant achievement has been outlined in chemistry.org (ACS), Heart Cut, October 28th 2002. We were invited to present our first work in this area at an ACS meeting (Boston, Fall 2002) and to write a review for Macromolecular Rapid Communications (2005).
3. M.Ranger, D. Rondeau, and M. Leclerc, «**New Well-Defined Poly(2,7-fluorene) Derivatives: Photoluminescence and Base-Doping**», *Macromolecules* 30, 7686-7691 (1997). For the first time, we have reported the synthesis of well-defined homo- and alternating fluorene-based conjugated polymers by Suzuki coupling reactions. This publication has paved the way to a new class of luminescent and conducting polymers. This important publication has already been cited 314 times. This pioneer work was followed by other studies from my group on luminescent and base-dopable conducting polyfluorenes. Our work on polyfluorenes has been the subject of an invited review in the Journal of Polymer Science, Chemistry Edition (2001).

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8. K. Faid, R. Cloutier and M. Leclerc, «Design of New Electroactive Polythiophene Derivatives», ICSM, Sweden *Synth. Metals*, 55, 1272-1277 (1993).
7. M. Leclerc, C. Roux and J.Y. Bergeron, «Structural Effects on the Thermochromic Properties of Polythiophene Derivatives», ICSM, Goteborg, Sweden. *Synth. Metals*, 55, 287-292 (1993).
6. C. Roux, J.Y. Bergeron and M. Leclerc, «Rod-to-Coil Transition in Polythiophenes: Structure-Property Relationships», ACS Meeting, Washington, *Polym. Prepr.*, 33, 406-407 (1992).
5. M. Leclerc, G. D'Aprano and G. Zotti, «Characterization of a New Protonated Form in Fully Oxidized Poly(alkylanilines)», ACS Meeting, Atlanta, *Polym. Mat. Eng. Sci.*, 64, 173-174 (1991).
4. M. Leclerc and G. Daoust, «Structural Effects in Alkyl and Alkoxy-Substituted Polythiophenes», ICSM Meeting, Tubingen, *Synth. Metals*, 41-43, 529-532 (1991).
3. D. Neher, A. Wolf, M. Leclerc, A. Kaltbeitzel, C. Bubeck and G. Wegner, «Optical Third-Harmonic Generation in Substituted Polyphenylacetylenes and Poly(3-decylthiophenes)», *Synth. Metals*, 37, 249-253 (1990).
2. L.H. Dao, J. Guay and M. Leclerc, «Poly(N-arylanilines). Synthesis and spectroelectrochemistry», ICSM Meeting, Santa Fe, *Synth. Metals*, 29 E-383-E388 (1989).
1. L.H. Dao, M. Leclerc, J. Guay and J.W. Chevalier, «Synthesis and Characterization of Substituted Polyanilines», ICSM Meeting, Santa Fe, *Synth. Metals*, 29, E377-E382 (1989).

Book Chapters (9)

9. H.A. Ho and M. Leclerc, «Biosensors Based on Conjugated Polymers», in Semiconducting Polymers: Chemistry, Physics and Engineering, Vol. 1, 2nd Ed., Wiley-VCH, 2006, pp.643-665.
8. H.A. Ho, M. Boissinot, M.G. Bergeron, G. Corbeil, K. Doré, D. Boudreau and M. Leclerc, «*DNA-Sensors Using a Water-Soluble, Cationic Polythiophene Derivative*» in ACS Symposium Series 888, 2005, pp.359-367.
7. M. Leclerc and I. Lévesque, «*Chromism in Conjugated Polymers*» in Electronic and Optical Properties of Conjugated Molecular Systems in Condensed Phases, Research Signpost, 2003, pp.513-528.
6. M. Leclerc, «*Neutral Conjugated Polymers: Chromism*» in Encyclopedia of Materials: Science and Technology, Elsevier, 2001, pp.6119-6124.
5. M. Leclerc, «*Optical and Electrochemical Sensors Based on Functionalized Conjugated Polymers*», in Sensors Update vol. 8, Wiley-VCH, 2000, pp. 21-38.
4. M. Leclerc and K. Faïd, «*Field-Responsive Conjugated Polymers*», ACS Symposium Series, 726, 113-128 (1999).
3. M. Leclerc and K. Faïd, «*Conformation Induced Chromism in Conjugated Polymers*» in Handbook of Conducting Polymers, 2nd Edition, T. Skotheim, R.L. Elsenbaumer and J.R. Reynolds, Marcel Dekker, 1998, pp. 695-706.
2. M. Leclerc and K. Faïd, «*Polybithiophenes. Advanced Derivatives*» in the Polymeric Materials Encyclopedia: Synthesis, Properties and Applications, J.C. Salamone, Ed., CRC Press, 1996, pp. 5641-5648.
1. A. Diaz, M. Nguyen and M. Leclerc, «*Electronically Conducting Soluble Polymers*» in Physical Electrochemistry: Principles, Methods and Applications, I. Rubinstein Ed., Marcel Dekker, 1995, pp. 555-583.

Patents (9)

9. A. Najari, H.A. Ho, and M. Leclerc, Reagentless, Ultrasensitive, Specific Nucleic Acid and Protein Array Detection Based on Responsive Polymeric Biochips, PCT application, filed
8. M. Leclerc, H.A. Ho, and K. Doré, Ultra-Sensitive Molecular Detection of Nucleic Acids by Fluorescence Signal Amplification, PCT application, filed March 3rd (2005).
7. N. Drolet, J.F. Morin, Y. Tao, K. Sirois, and M. Leclerc, 2,7-Carbazolenevinylene Derivatives as Novel Materials in Producing Organic Based Electronic Devices, PCT application, filed October 2nd (2004).
6. J.F. Morin and M. Leclerc, Monomers, Oligomers, and Polymers of 2-Functionalized and 2,7-Difunctionalized Carbazoles, PCT application, filed August 16th (2004)
5. M. Leclerc, H.A. Ho, and M. Boissinot, Optical Sensors Based on Hybrid Aptamer/Conjugated Polymer Complexes, PCT application, filed June 3rd (2004)
4. M. Leclerc, H.A. Ho, and M. Boissinot, Detection of Negatively Charged Polymers Using Water-Soluble, Cationic, Polythiophene Derivatives, WO 2002/081735 application, US 7,083,928, issued on August 1st 2006.
3. J. F. Morin, M. Leclerc, J. Lévesque, C. Py, and M. D'Iorio, Conjugated Polycarbazole Derivatives in Organic Light Emitting Diodes, US Patent 6,630,254, Issued on October 7th 2003.
2. J.F. Morin and M. Leclerc, Conjugated Poly(2,7-carbazole) Derivatives and Process for the Preparation Thereof, US Patent 6,8333,432 B2, issued on Dec. 21st 2004; Canadian Patent CA 2360826, issued on Sept. 12th 2006.
1. M. Chayer, K. Faïd and M. Leclerc, Novel Self-Acid-Doped Highly Conducting Polymers, International Patent (PCT/CA97/00477), US Patent 6,051,679.

Invited Lectures (106)

106. Cornell University, Department of Materials Science, *Conjugated Polymers: From Micro-Electronics to Genomics*, October 30th 2008, Ithaca, U.S.A..
105. Queen's University, Department of Chemistry, *Conjugated Polymers: From Micro-Electronics to Genomics*, October 3rd 2008, Kingston, Canada.
104. Entretiens Jacques Cartier 2008, *Piles solaires plastiques*, October 6th 2008, Montreal.
103. Gordon Research Conference, *Optical Detection of DNA and Proteins Based on Cationic Polythiophenes*, July 21st 2008, South Hadley, MA, U.S.A.
102. Macro-IUPAC 2008, *Biosensors Based on Cationic Polymers*, July 1st 2008, Taipee, Taiwan.
101. CSC Meeting 2008, MSED Award Lecture, *Conjugated Polymers : From Genomics to Micro-Electronics*, May 25th 2008, Edmonton, Canada.
100. ACFAS 2008, Colloque Biophotonique, *Polymères Conjugués: de la Micro-Électronique à la Bio-Photonique*, May 5th 2008, Québec.
99. TNO Holst Centre, *Conjugated Polymers: From Micro-Electronics to Genomics*, April 3rd 2008, Eindhoven, Holland
98. Europtrode IX, *Optical Detection of DNA and Proteins Based on Cationic Polythiophenes*, April 1st 2008, Dublin, Ireland.
97. Royal Society of Chemistry Meeting: Analytical Techniques for the Life Sciences, *Detection of DNA Damage From Radiation*, March 28th 2008, Dublin, Ireland
96. University of Windsor, Department of Chemistry, *Conjugated Polymers: From Micro-Electronics to Genomics*, January 25th 2008, Windsor, Canada.
95. Carnegie-Mellon University, Department of Chemistry, *Conjugated Polymers: From Micro-Electronics to Genomics*, October 9th 2007, Pittsburgh, U.S.A.
94. Université de Montréal, Department of Physics, *Conjugated Polymers: From Micro-Electronics to Genomics*, September 24th 2007, Montreal.
93. American Chemical Society Meeting, *Optical Detection of DNA and Proteins Based on Cationic Polythiophenes*, August 2007, Boston, U.S.A.
92. 2nd Organic & Nano Electronics Workshop, *Plastic Solar Cells Based on Poly(2,7-carbazole) Derivatives*, May 17th 2007, Montreal.

91. Carrefour des Matériaux, CNRC, *Piles Solaires Plastiques*, April 11th 2007, Ste-Hyacinthe.
90. Université Laval, Department of Physics, *Conjugated Polymers: From Micro-Electronics to Bio-Photonics*, February 27th 2007, Quebec City.
89. Université de Sherbrooke, Department of Chemistry, *Conjugated Polymers: From Micro-Electronics to Genomics*, February 21st 2007, Sherbrooke.
88. Konarka Inc., *Solar Cells Based on Poly(2,7-carbazole)s*, February 13th 2007, Lowell, U.S.A.
87. Université d'Angers, Laboratoire des Matériaux Moléculaires Organiques, *Ultra-Sensitive Optical Detection of DNA and Proteins From Conjugated Polymers*, November 23rd 2006, Angers, France.
86. International Conference on Synthetic Metals, *Ultra-Sensitive Optical Detection of DNA and Proteins From Conjugated Polymers*, July 4th 2006, Dublin, Ireland.
85. CSC 2006 Meeting, *Optical Detection of DNA by Conjugated Polymers*, June 1st 2006, Halifax, Canada.
84. University of Michigan at Ann Arbor, Department of Materials Science, *Ultra-Sensitive Optical Detection of DNA and Proteins From Conjugated Polymers*, March 10th 2006, Ann Arbor, U.S.A.
83. Université Laval, Department of Biochemistry, *Détection ultrasensible et spécifique d'ADN et de protéines: un défi de taille*, March 3rd 2006, Quebec City.
82. Université Laval, Faculty of Sciences and Engineering, *Plastiques, génétique et vidéo*, February 1st 2006, Quebec City.
81. CSC 2005 Meeting, *Optical Transduction of DNA Hybridization by Conjugated Polymers*, May 29th 2005, Saskatoon, Canada.
80. 8th International Conference on Frontiers of Polymers and Advanced Materials (Keynote Lecture), *Optical Transduction of DNA Hybridization by Conjugated Polymers*, April 22nd 2005, Cancun, Mexico.
79. UQAM, Department of Chemistry, *Détection ultrasensible et spécifique d'ADN: un défi de taille*, March 7th 2005, Montreal.
78. Rencontre Technologique du Centre québécois de valorisation des biotechnologies, *Nouveaux biosenseurs basés sur des polymères conjugués fonctionnalisés*, January 25th 2005, Trois-Rivières.
77. Université du Québec à Chicoutimi, Department of Chemistry, Biocapteurs optiques et électriques à base de polymères conjugués, October 22nd 2004, Chicoutimi.
76. Massachusetts Institute of Technology, Departments of Polymer Science and Chemistry, Optical and Electrochemical Biosensors Based on DNA/Polythiophene Complexes, October 13th 2004, Cambridge, USA.
75. Macro-IUPAC, Optical Sensors Based on Hybrid DNA / Conjugated Polymer Complexes, July 6th 2004, Paris, France.
74. Congrès Nano-Québec, Détection rapide et spécifique de l'ADN: un défi de taille, May 11th 2004, Montreal.
73. Second France-Canada Chemistry Congress, Plastics, Genetics, and Video, April 30th 2004, Nice, France
72. Georgia Tech, Department of Chemistry, Plastics, Genetics, and Video, April 1st 2004, Atlanta, USA
71. Steacie Institute for Molecular Sciences, NRC, Plastics, Genetics, and Video, March 9th 2004, Ottawa
70. Concordia University, Department of Chemistry, Plastics, Genetics, and Video, February 13th 2004, Montreal
69. IUPAC/CSC meeting, Chemical and Biochemical Sensors Based on Functionalized Polythiophenes, August 12th 2003, Ottawa.
68. Gordon Research Conference on Chemical Sensors & Interfacial Design, Electroactive and Photoactive Polymers for Chemical Sensing, August 4th 2003, Newport, U.S.A.

67. Institut Max-Planck for Polymer Research, Plastics, Genomics and Video, July 4th 2003, Mainz, Germany
66. Université Paris VI, Polymères conjugués et génomique, June 30th 2003, Paris, France
65. Université de Montpellier, Polymères conjugués: de l'électro-optique à la génomique, June 26th 2003, Montpellier, France.
64. Institut Charles Sadron, Polymères conjugués: de l'électro-optique à la génomique, June 23rd 2003, Strasbourg, France
63. Université Paris VI, Polycarbazoles: Synthèse, Caractérisation et Applications, June 20th 2003, Paris, France.
62. Colloque de l'IMSI de l'Université de Sherbrooke, Plastiques, génétique et vidéo, October 22nd 2002, Sherbrooke.
61. American Chemical Society, Poly(2,7-Carbazole) Derivatives for Applications in Light-Emitting Diodes, August 20th 2002, Boston, U.S.A.
60. Canadian High Polymer Forum, Sensors Based on Functionalized Conjugated Polymers, August 13th 2002, Ottawa.
59. Congrès de la Société de Chimie du Canada, Affinitychromism in Polythiophene Derivatives, June 4th 2002, Vancouver
58. Congrès de l'ACFAS 2002, Nouveaux polymères appliqués à la chimie combinatoire et à la biotechnologie, May 14th, 2002, Quebec City.
57. American Chemical Society Meeting, Novel DNA-chromic Conjugated Polymers, April 10th 2002, Orlando, U.S.A.
56. Steacie Institute for Molecular Sciences, Functional Polymers: From Electro-Optics to Genomics, April 5th 2002, Ottawa
55. Queen's University, Smart Materials Based on Functionalized Conjugated Polymers, December 5th 2001, Kingston.
54. Université de Montréal, Department of Physics, Electroactive and Photoactive Polymers, September 21st 2001, Montréal.
53. Boehringer-Ingelheim, Affinitychromic Polymers Applied to Combinatorial Chemistry, September 19th 2001, Laval.
52. 9th International Symposium of Macromolecular Metal Complexes, IUPAC-ACS, Ion-Responsive Conjugated Polymers, August 22nd 2001, New York.
51. Congrès GFP-SQP, Développement de biocapteurs polymères, July 6th 2001, Nancy, France.
50. Université Paris VI, Diodes électroluminescentes polymères, July 3rd 2001, Paris, France.
49. Université Paris-XIII, Vers le développement de polymères intelligents, July 2nd 2001, Paris, France
48. Université de Nantes, Développement de biocapteurs polymères, June 28th 2001, Nantes, France
47. International Seminar on the Technology of Inherently Conducting Polymers: Smart Materials Based on Functionalized Conjugated Polymers, June 19th 2001, Niagara-on-the-Lake.
46. Canadian Electrochemical Society Symposium, Electrochemical Biosensors Based on Functionalized Conducting Polymers, June 1st 2001, Boucherville.
45. Congrès de l'ACFAS, Diodes organiques électroluminescentes polymères, May 15th 2001, Sherbrooke..
44. Centre Hospitalier Université Laval, Polymères synthétiques et séquences génétiques, April 27th 2001, Quebec City.
43. Materials Research Society, Electronic, Optical, and Optoelectronic Polymers and Oligomers, April 17th 2001, San Francisco, U.S.A.
42. Search for Electroactive Materials 2000, Novel Biosensors Based on Functionalized

Conjugated Polymers, December 2000, New-York, U.S.A.

41. Institut des Matériaux Industriels, Vers le Développement de Polymères Intelligents, October 2000, Boucherville, Canada
40. International Conference on Science and Technology of Synthetic Metals, ICSM 2000, Molecular Design of Chromic Functionalized Conjugated Polymers, July 2000, Bad Gastein, Autriche.
39. MACRO IUPAC 2000, Smart Polymers Based on Functionalized Conjugated Polymers, July 2000, Varsovie, Pologne
38. International Seminar on the Technology of Inherently Conducting Polymers: Smart Materials Based on Functionalized Conjugated Polymers: Present and Perspectives, June 2000, Napa, U.S.A.
37. Congrès de l'Institut de Chimie du Canada, Smart Materials Based on Functionalized Conjugated Polymers, May 2000, Calgary
36. XEROX Research Centre, Smart Materials Based on Functionalized Conjugated Polymers, March 2000, Mississauga.
35. Université Ottawa-Carleton, Smart Materials Based on Functionalized Polymers, March 2000, Ottawa.
34. International Seminar on the Technology of Inherently Conductive Polymers, Chromic Phenomena in Polythiophene Derivatives, September 1999, Toronto.
33. Centre d'Énergie Atomique, Synthèse et caractérisation de sels de polyfluorenyl-lithium, September 1999, Grenoble, France.
32. Journées Polymères Conducteurs '99, Vers le Développement de Biocapteurs Polymères (Keynote Speaker), September 1999, Aussois, France
31. 19th Annual Conference of the Canadian Biomaterials Society, Development of Photoactive and Electroactive Polymeric Biosensors (Keynote Speaker), June 1999, Québec
30. Congrès de l'Institut de Chimie du Canada, Field-Responsive Supramolecular Polythiophene Assemblies, June 1999, Toronto
29. Congrès de l'ACFAS, Etude de Polyesters Electroactifs et Photoactifs Dérivés d'Oligofluorènes, May 1999, Ottawa
28. Chemi Chromics USA '99, Chromic Phenomena in Polythiophene Derivatives, January 1999, New Orleans, U.S.A.
27. Université Laval, Vers le Développement de Polymères Intelligents, January 1999, Québec.
26. International Conference on Synthetic Metals '98. Development of New Base-Dopable Polymers. July 1998, Montpellier, France
25. Congrès de l'ACFAS. Synthèse et caractérisation de polyfluorènes régiorégulièrs pour applications en électro-optique, May 1998, Québec
24. Université Carleton. Electrical and Optical Properties of Novel Polythiophene Derivatives. March 1998, Ottawa
23. Conseil national de recherche du Canada. Electrical and Optical Properties of Novel Polythiophene Derivatives. December 1997, Ottawa
22. Congrès de l'Institut de chimie du Canada. Development of Novel Photochromic and Affinitychromic Polythiophene Derivatives. June 1997, Windsor.
21. Congrès GFP-SQP. Vers le développement de bio-senseurs. May 1997, Lyon, France
20. École Polytechnique Fédérale de Lausanne, Département des Matériaux. Electrical and Optical Properties of Polythiophene Derivatives. February 1997, Lausanne, Switzerland.
19. Institut National Polytechnique de Grenoble. Propriétés électriques et optiques de dérivés du polythiophène. Novembre 1996, Grenoble, France.
18. Institute Max-Planck for Polymer Research. Electrical Properties of Polythiophene

Derivatives. November 1996, Mainz, Allemagne.

17. Institute Max-Planck for Polymer Research. Chromism in Conjugated Polymers. November 1996, Mainz, Allemagne.
16. Xerox Research Centre of Canada. Optical Properties of Polythiophene Derivatives. February 1996, Mississauga.
15. IV International Conference on Advanced Materials. Chromism in Conjugated Polymers. August 1995, Cancun, Mexico.
14. Congrès de l'Institut de chimie du Canada. Self-Assembly in Chromic Polythiophene Derivatives. June 1995, Guelph.
13. ACS, 17th Biennal Symposium. Self-Assembly in Thermochromic Polythiophene Derivatives. November 1994, San Juan, Porto Rico.
12. Université du Québec à Montréal. Vers le développement de polymères intelligents. November 1994, Montréal
11. Max-Planck Institute Anniversary Meeting. Structure-Property Relationships in Thermochromic Polythiophene Derivatives. June 1994, Mainz, Allemagne
10. Université de Sherbrooke. Vers le développement de polymères intelligents. March 1994, Sherbrooke.
9. IBM Almaden Research Center. Synthesis and Characterization of Novel Electroactive and Photoactive Polythiophene Derivatives. March 1994, San Jose, USA.
8. 39th Canadian Spectroscopy Conference. Optical Properties of Poly(1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluorononylthiophene). August 1993, Québec.
7. IREQ (Hydro-Quebec) Electrical and Electrochemical Properties of Novel Conjugated Polymers, February 1993, Varennes.
6. Université de Paris-XIII, LRM, Propriétés Optiques de Dérivés du Polythiophène, May 1992, Paris, France
5. Université de Paris-XIII, LRM, Propriétés Electrochimiques de Dérivés de la Polyaniline, May 1992, Paris, France.
4. Congrès ICSM, Structural Effects on the Thermochromic Properties of Polythiophene Derivatives, August 1992, Goteborg, Sweden.
3. Université de Montréal, Département de chimie, Propriétés optiques et électriques de polymères conjugués, March 1992, Montreal.
2. Université Laval, Département de chimie, Propriétés optiques et électriques de polymères conjugués, January 1992, Quebec City.
1. McGill University, Department of Chemistry, Optical and Electrical Properties of Conjugated Polymers, January 1991, Montreal.

Other Evidence of Impact

- According to Science Citation Index, my papers have already received more than 6000 citations. I have a H-index of 45
- Macromolecular Science and Engineering Award 2008, Canada
- I am currently supervising 12 graduate students and 10 post-docs or research associates; and 32 students have already graduated from my laboratory. All of them have obtained a position in relation with their formation at the end of their studies.
- Member of the International Advisory Board of Macromolecular Chemistry and Physics, Macromolecular Rapid Communications, and Advanced Functional Materials (Wiley-VCH).
- Member of the Board for the Committee on Assays and Methods Development of the National Institute of Health (NIH) of USA, 2004.
- Reviewer for: Proceeding of the National Academy of Science (USA), Nature Materials, Journal of the American Chemical Society; Macromolecules; Chemistry of Materials; Advanced Materials; Advanced Functional Materials, Physical Review Letters; Journal of Organic Chemistry; Organic Letters; Macromolecular Chemistry and Physics; Macromolecular Rapid Communications; Journal of Physical Chemistry; Journal of Materials Chemistry; Thin Solid Films.